

Madge Goldman, President

Gabriella and Paul Rosenbaum Foundation

764 Mt. Pleasant Road

(ph) 610-527-0195

Bryn Mawr, PA 19010

(fax) 610-527-9308

Activity sponsored which supports GOAL 2 of the Mathematics and Science

Initiative: Improving Teacher Quality – Mathematics

SUMMARY/ PURPOSE:

The poor performance of U.S. students in K-12 mathematics is a major national concern, with “inner city” public schools presenting the most intractable challenge.

In contrast, TIMSS documented that Singaporean students, using Singapore’s research based mathematics curriculum, placed first in the world in school mathematics.

Supported by Rosenbaum Foundation grants, mathematicians at the University of Illinois at Chicago and the University of Chicago undertook to develop and pilot K-12 in-service teacher training courses for Chicago’s public school teachers to explore adaptation of Singapore’s mathematics textbooks, curriculum and pedagogy to enhance American teachers’ instructional capabilities.

Foundation consultants in Singapore were linked to the Principal Investigators of these Foundation grants.

ACCOMPLISHMENTS/RESULTS:

The promising results both for the teachers in the program and their students won direct support from the Chicago Public Schools for the project, and institutionalization of these courses at the University of Chicago.

PLANS for the NEXT 12 MONTHS:

The Massachusetts Department of Education has requested, and is receiving, Rosenbaum Foundation participation in replication of the Chicago teacher training project, linked with pilots that take the Singapore mathematics materials into the classroom. 2003 Summer Institutes will begin that teacher training.

In participating schools:

- 1) Begin Singapore math in K-1 or K-2 classrooms in 2003. Add one grade each year thereafter. (This is the preferred, most successful method for institutionalizing new curricula.)
- 2) In one or more of the K-8 project schools, implement Singapore curriculum throughout.

Instruction in Singapore material is predicated on student achievement of full understanding of the math. To prepare for seamless entry into schools and classrooms whose students have previously been instructed by traditional or reform math programs, which have not achieved this:

Foundation consultants and Massachusetts university mathematicians will work with the teachers, and in the classrooms, developing the best pedagogical means of bringing currently lagging students to grade level or higher.

Meantime as part of the project, special classroom and training aids will be developed.

These can, even while the project is in the pilot phase, be introduced and further refined in project schools, further favoring replicability of the Singapore math component.